



qPCR-2021-08-10 PMMoV O Aug 9 H Aug 5 7 8 CSC Aug 6 AC Aug 5 6 VC1 Aug 9 S.pcrd 08/10/2021 18:32

Report Information

User: BioRad/admin

Data File Name: qPCR-2021-08-10 PMMoV O Aug 9 H Aug 5 7 8 CSC Aug 6 AC Aug 5 6 VC1 Aug 9 S.pcrd

Data File Path: C:\Users\qPCRr\Documents\Syeda\Servicing\Aug 10

Well Group Name: All Wells

Report Differs from Last Save: No

Run Setup

Run Information

Run Date: 08/10/2021 17:25

Run User: admin

Run Type: PrimePCR

Plate File: qPCR-2021-08-05_PEPPER_O_CSC_LIZ_10 SAMPLES.pltd

ID:

Notes:

Sample Volume: 10

Temperature Control Mode: Calculated

Lid Temperature: 105

Base Serial Number: BR004529

Optical Head Serial Number: 788BR04584

Protocol Edited: Yes

Protocol

1: 50.0°C for 5:00

2: 95.0°C for 0:20

3: 95.0°C for 0:03

4: 60.0°C for 0:30

Plate Read

5: GOTO 3, 44 more times

Plate Display

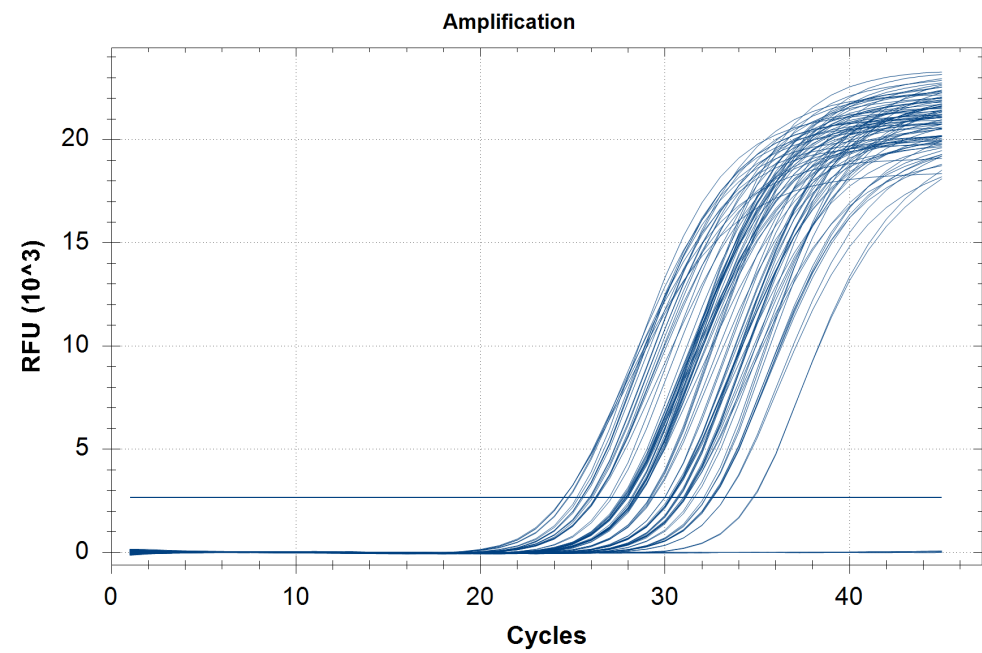
	1	2	3	4	5	6	7	8	9	10	11	12
A	Std Pepper	Std Pepper	Std Pepper	Unk Pepper H_08.07.21	Unk Pepper H_08.07.21	Unk Pepper10 H_08.07.21	Unk Pepper10 H_08.07.21	Unk Pepper10 H_08.07.21	Unk Pepper40 H_08.07.21	Unk Pepper40 H_08.07.21	Unk Pepper AC_08.05.2 1	Unk Pepper AC_08.05.2 1
B	Std Pepper	Std Pepper	Std Pepper	Unk Pepper H_08.08.21	Unk Pepper H_08.08.21	Unk Pepper10 H_08.08.21	Unk Pepper10 H_08.08.21	Unk Pepper10 H_08.08.21	Unk Pepper40 H_08.08.21	Unk Pepper40 H_08.08.21	Unk Pepper10 AC_08.05.2 1	Unk Pepper10 AC_08.05.2 1
C	Std Pepper	Std Pepper	Std Pepper	Unk Pepper MH_08.09.2 1	Unk Pepper MH_08.09.2 1	Unk Pepper10 MH_08.09.2 1	Unk Pepper10 MH_08.09.2 1	Unk Pepper10 MH_08.09.2 1	Unk Pepper40 MH_08.09.2 1	Unk Pepper40 MH_08.09.2 1	Unk Pepper10 AC_08.05.2 1	Unk Pepper10 AC_08.05.2 1

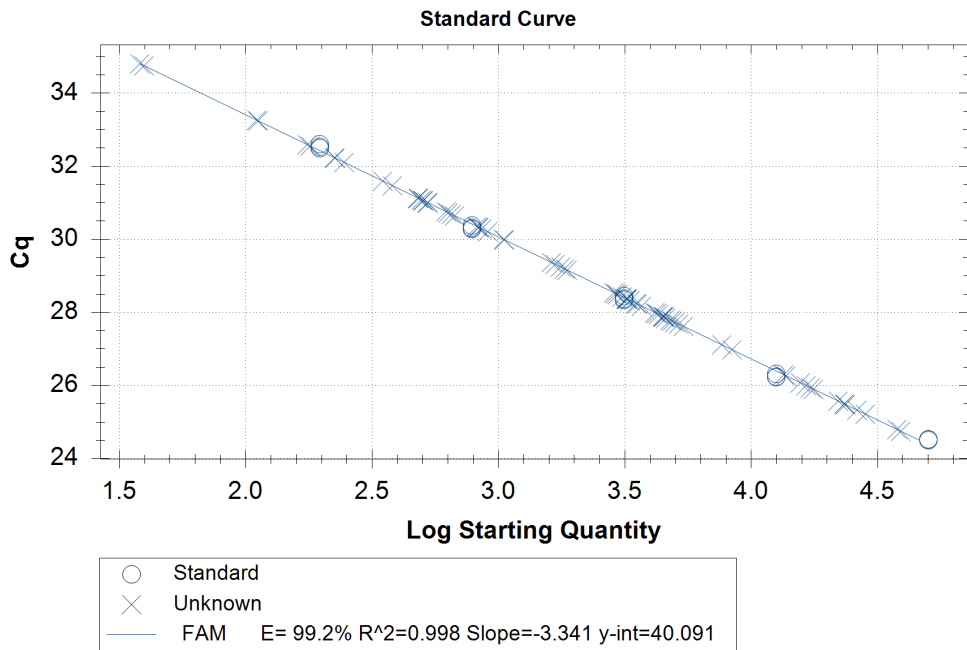
Plate Display

	1	2	3	4	5	6	7	8	9	10	11	12
D	Std Pepper	Std Pepper	Std Pepper	Unk Pepper H_D_08.06. 21	Unk Pepper H_D_08.06. 21	Unk Pepper10 H_D_08.06. 21	Unk Pepper10 H_D_08.06. 21	Unk Pepper10 H_D_08.06. 21	Unk Pepper40 H_D_08.06. 21	Unk Pepper40 H_D_08.06. 21	Unk Pepper40 AC_08.05.2 1	Unk Pepper40 AC_08.05.2 1
E	Std Pepper	Std Pepper	Std Pepper	Unk Pepper H_D_08.08. 21	Unk Pepper H_D_08.08. 21	Unk Pepper10 H_D_08.08. 21	Unk Pepper10 H_D_08.08. 21	Unk Pepper10 H_D_08.08. 21	Unk Pepper40 H_D_08.08. 21	Unk Pepper40 H_D_08.08. 21	Unk Pepper AC_08.06.2 1	Unk Pepper AC_08.06.2 1
F	NTC Pepper	NTC Pepper	NTC Pepper	Unk Pepper BMI_08.09. 21	Unk Pepper BMI_08.09. 21	Unk Pepper10 BMI_08.09. 21	Unk Pepper10 BMI_08.09. 21	Unk Pepper10 BMI_08.09. 21	Unk Pepper40 BMI_08.09. 21	Unk Pepper40 BMI_08.09. 21	Unk Pepper AC_08.06.2 1	Unk Pepper AC_08.06.2 1
G	Unk Pepper O_08.09.21	Unk Pepper O_08.09.21	Unk Pepper10 O_08.09.21	Unk Pepper10 O_08.09.21	Unk Pepper10 O_08.09.21	Unk Pepper40 O_08.09.21	Unk Pepper40 O_08.09.21	Unk Pepper10 AC_08.05.2 1	Unk Pepper10 AC_08.05.2 1	Unk Pepper10 AC_08.05.2 1	Unk Pepper40 AC_08.05.2 1	Unk Pepper40 AC_08.05.2 1
H	Unk Pepper H_08.05.21	Unk Pepper H_08.05.21	Unk Pepper10 H_08.05.21	Unk Pepper10 H_08.05.21	Unk Pepper10 H_08.05.21	Unk Pepper40 H_08.05.21	Unk Pepper40 H_08.05.21	Unk Pepper10 AC_08.06.2 1	Unk Pepper10 AC_08.06.2 1	Unk Pepper10 AC_08.06.2 1	Unk Pepper40 AC_08.06.2 1	Unk Pepper40 AC_08.06.2 1

Quantification

Step #: 4
Analysis Mode: Fluorophore
Cq Determination: Single Threshold
Baseline Method:
FAM: Auto Calculated
Threshold Setting:
FAM: 2672.10, Auto Calculated





Quantification Data

Well	Fluor	Target	Content	Sample	Cq	Cq Mean	Cq Std. Dev	Starting Quantity (SQ)	Log Starting Quantity	SQ Mean	SQ Std. Dev
A01	FAM	Pepper	Std		24.50	24.50	0.000	5.020E+04	4.701	5.02E+04	0.00E+00
A02	FAM	Pepper	Std		24.53	24.53	0.000	5.020E+04	4.701	5.02E+04	0.00E+00
A03	FAM	Pepper	Std		24.53	24.53	0.000	5.020E+04	4.701	5.02E+04	0.00E+00
A04	FAM	Pepper	Unkn	H_08.07.21	24.80	24.80	0.000	3.773E+04	4.577	3.77E+04	0.00E+00
A05	FAM	Pepper	Unkn	H_08.07.21	24.75	24.75	0.000	3.905E+04	4.592	3.91E+04	0.00E+00
A06	FAM	Pepper10	Unkn	H_08.07.21	27.98	27.98	0.000	4.226E+03	3.626	4.23E+03	0.00E+00
A07	FAM	Pepper10	Unkn	H_08.07.21	27.69	27.69	0.000	5.163E+03	3.713	5.16E+03	0.00E+00
A08	FAM	Pepper10	Unkn	H_08.07.21	27.88	27.88	0.000	4.509E+03	3.654	4.51E+03	0.00E+00
A09	FAM	Pepper40	Unkn	H_08.07.21	30.29	30.29	0.000	8.589E+02	2.934	8.59E+02	0.00E+00
A10	FAM	Pepper40	Unkn	H_08.07.21	30.36	30.36	0.000	8.210E+02	2.914	8.21E+02	0.00E+00
A11	FAM	Pepper	Unkn	AC_08.05.21	27.89	27.89	0.000	4.477E+03	3.651	4.48E+03	0.00E+00
A12	FAM	Pepper	Unkn	AC_08.05.21	27.80	27.80	0.000	4.790E+03	3.680	4.79E+03	0.00E+00
B01	FAM	Pepper	Std		26.32	26.32	0.000	1.255E+04	4.099	1.26E+04	0.00E+00
B02	FAM	Pepper	Std		26.23	26.23	0.000	1.255E+04	4.099	1.26E+04	0.00E+00
B03	FAM	Pepper	Std		26.24	26.24	0.000	1.255E+04	4.099	1.26E+04	0.00E+00
B04	FAM	Pepper	Unkn	H_08.08.21	26.00	26.00	0.000	1.649E+04	4.217	1.65E+04	0.00E+00
B05	FAM	Pepper	Unkn	H_08.08.21	25.90	25.90	0.000	1.765E+04	4.247	1.76E+04	0.00E+00
B06	FAM	Pepper10	Unkn	H_08.08.21	28.00	28.00	0.000	4.162E+03	3.619	4.16E+03	0.00E+00
B07	FAM	Pepper10	Unkn	H_08.08.21	27.95	27.95	0.000	4.303E+03	3.634	4.30E+03	0.00E+00
B08	FAM	Pepper10	Unkn	H_08.08.21	27.77	27.77	0.000	4.871E+03	3.688	4.87E+03	0.00E+00
B09	FAM	Pepper40	Unkn	H_08.08.21	N/A	0.00	0.000	N/A	N/A	0.00E+00	0.00E+00
B10	FAM	Pepper40	Unkn	H_08.08.21	N/A	0.00	0.000	N/A	N/A	0.00E+00	0.00E+00
B11	FAM	Pepper10	Unkn	AC_08.05.21	31.09	31.09	0.000	4.961E+02	2.696	4.96E+02	0.00E+00
B12	FAM	Pepper10	Unkn	AC_08.05.21	31.13	31.13	0.000	4.810E+02	2.682	4.81E+02	0.00E+00
C01	FAM	Pepper	Std		28.45	28.45	0.000	3.138E+03	3.497	3.14E+03	0.00E+00
C02	FAM	Pepper	Std		28.38	28.38	0.000	3.138E+03	3.497	3.14E+03	0.00E+00
C03	FAM	Pepper	Std		28.35	28.35	0.000	3.138E+03	3.497	3.14E+03	0.00E+00
C04	FAM	Pepper	Unkn	MH_08.09.21	27.12	27.12	0.000	7.642E+03	3.883	7.64E+03	0.00E+00

Quantification Data

Well	Fluor	Target	Content	Sample	Cq	Cq Mean	Cq Std. Dev	Starting Quantity (SQ)	Log Starting Quantity	SQ Mean	SQ Std. Dev
C05	FAM	Pepper	Unkn	MH_08.09.21	26.98	26.98	0.000	8.390E+03	3.924	8.39E+03	0.00E+00
C06	FAM	Pepper10	Unkn	MH_08.09.21	30.33	30.33	0.000	8.363E+02	2.922	8.36E+02	0.00E+00
C07	FAM	Pepper10	Unkn	MH_08.09.21	30.33	30.33	0.000	8.330E+02	2.921	8.33E+02	0.00E+00
C08	FAM	Pepper10	Unkn	MH_08.09.21	30.21	30.21	0.000	9.061E+02	2.957	9.06E+02	0.00E+00
C09	FAM	Pepper40	Unkn	MH_08.09.21	32.56	32.56	0.000	1.799E+02	2.255	1.80E+02	0.00E+00
C10	FAM	Pepper40	Unkn	MH_08.09.21	32.60	32.60	0.000	1.751E+02	2.243	1.75E+02	0.00E+00
C11	FAM	Pepper10	Unkn	AC_08.05.21	31.01	31.01	0.000	5.232E+02	2.719	5.23E+02	0.00E+00
C12	FAM	Pepper10	Unkn	AC_08.05.21	31.13	31.13	0.000	4.806E+02	2.682	4.81E+02	0.00E+00
D01	FAM	Pepper	Std		30.38	30.38	0.000	7.844E+02	2.895	7.84E+02	0.00E+00
D02	FAM	Pepper	Std		30.28	30.28	0.000	7.844E+02	2.895	7.84E+02	0.00E+00
D03	FAM	Pepper	Std		30.32	30.32	0.000	7.844E+02	2.895	7.84E+02	0.00E+00
D04	FAM	Pepper	Unkn	H_D_08.06.21	27.62	27.62	0.000	5.394E+03	3.732	5.39E+03	0.00E+00
D05	FAM	Pepper	Unkn	H_D_08.06.21	27.73	27.73	0.000	4.997E+03	3.699	5.00E+03	0.00E+00
D06	FAM	Pepper10	Unkn	H_D_08.06.21	27.90	27.90	0.000	4.472E+03	3.651	4.47E+03	0.00E+00
D07	FAM	Pepper10	Unkn	H_D_08.06.21	27.86	27.86	0.000	4.597E+03	3.662	4.60E+03	0.00E+00
D08	FAM	Pepper10	Unkn	H_D_08.06.21	27.88	27.88	0.000	4.512E+03	3.654	4.51E+03	0.00E+00
D09	FAM	Pepper40	Unkn	H_D_08.06.21	30.00	30.00	0.000	1.048E+03	3.020	1.05E+03	0.00E+00
D10	FAM	Pepper40	Unkn	H_D_08.06.21	29.99	29.99	0.000	1.056E+03	3.023	1.06E+03	0.00E+00
D11	FAM	Pepper40	Unkn	AC_08.05.21	33.25	33.25	0.000	1.119E+02	2.049	1.12E+02	0.00E+00
D12	FAM	Pepper40	Unkn	AC_08.05.21	33.26	33.26	0.000	1.105E+02	2.043	1.10E+02	0.00E+00
E01	FAM	Pepper	Std		32.61	32.61	0.000	1.961E+02	2.292	1.96E+02	0.00E+00
E02	FAM	Pepper	Std		32.50	32.50	0.000	1.961E+02	2.292	1.96E+02	0.00E+00
E03	FAM	Pepper	Std		32.53	32.53	0.000	1.961E+02	2.292	1.96E+02	0.00E+00
E04	FAM	Pepper	Unkn	H_D_08.08.21	25.94	25.94	0.000	1.716E+04	4.235	1.72E+04	0.00E+00
E05	FAM	Pepper	Unkn	H_D_08.08.21	26.08	26.08	0.000	1.564E+04	4.194	1.56E+04	0.00E+00
E06	FAM	Pepper10	Unkn	H_D_08.08.21	28.37	28.37	0.000	3.223E+03	3.508	3.22E+03	0.00E+00
E07	FAM	Pepper10	Unkn	H_D_08.08.21	28.37	28.37	0.000	3.235E+03	3.510	3.24E+03	0.00E+00
E08	FAM	Pepper10	Unkn	H_D_08.08.21	28.18	28.18	0.000	3.687E+03	3.567	3.69E+03	0.00E+00
E09	FAM	Pepper40	Unkn	H_D_08.08.21	30.76	30.76	0.000	6.201E+02	2.792	6.20E+02	0.00E+00
E10	FAM	Pepper40	Unkn	H_D_08.08.21	30.65	30.65	0.000	6.712E+02	2.827	6.71E+02	0.00E+00
E11	FAM	Pepper	Unkn	AC_08.06.21	29.32	29.32	0.000	1.677E+03	3.224	1.68E+03	0.00E+00
E12	FAM	Pepper	Unkn	AC_08.06.21	29.37	29.37	0.000	1.619E+03	3.209	1.62E+03	0.00E+00
F01	FAM	Pepper	NTC		N/A	0.00	0.000	N/A	N/A	0.00E+00	0.00E+00
F02	FAM	Pepper	NTC		N/A	0.00	0.000	N/A	N/A	0.00E+00	0.00E+00
F03	FAM	Pepper	NTC		N/A	0.00	0.000	N/A	N/A	0.00E+00	0.00E+00
F04	FAM	Pepper	Unkn	BMI_08.09.21	25.50	25.50	0.000	2.335E+04	4.368	2.34E+04	0.00E+00
F05	FAM	Pepper	Unkn	BMI_08.09.21	25.50	25.50	0.000	2.335E+04	4.368	2.33E+04	0.00E+00
F06	FAM	Pepper10	Unkn	BMI_08.09.21	28.55	28.55	0.000	2.858E+03	3.456	2.86E+03	0.00E+00
F07	FAM	Pepper10	Unkn	BMI_08.09.21	28.52	28.52	0.000	2.909E+03	3.464	2.91E+03	0.00E+00
F08	FAM	Pepper10	Unkn	BMI_08.09.21	28.38	28.38	0.000	3.210E+03	3.506	3.21E+03	0.00E+00
F09	FAM	Pepper40	Unkn	BMI_08.09.21	31.06	31.06	0.000	5.046E+02	2.703	5.05E+02	0.00E+00
F10	FAM	Pepper40	Unkn	BMI_08.09.21	31.00	31.00	0.000	5.261E+02	2.721	5.26E+02	0.00E+00
F11	FAM	Pepper	Unkn	AC_08.06.21	26.27	26.27	0.000	1.373E+04	4.138	1.37E+04	0.00E+00
F12	FAM	Pepper	Unkn	AC_08.06.21	26.30	26.30	0.000	1.346E+04	4.129	1.35E+04	0.00E+00
G01	FAM	Pepper	Unkn	O_08.09.21	25.58	25.58	0.000	2.208E+04	4.344	2.21E+04	0.00E+00
G02	FAM	Pepper	Unkn	O_08.09.21	25.48	25.48	0.000	2.363E+04	4.374	2.36E+04	0.00E+00
G03	FAM	Pepper10	Unkn	O_08.09.21	28.49	28.49	0.000	2.963E+03	3.472	2.96E+03	0.00E+00
G04	FAM	Pepper10	Unkn	O_08.09.21	28.38	28.38	0.000	3.208E+03	3.506	3.21E+03	0.00E+00
G05	FAM	Pepper10	Unkn	O_08.09.21	28.43	28.43	0.000	3.090E+03	3.490	3.09E+03	0.00E+00

Quantification Data

Well	Fluor	Target	Content	Sample	Cq	Cq Mean	Cq Std. Dev	Starting Quantity (SQ)	Log Starting Quantity	SQ Mean	SQ Std. Dev
G06	FAM	Pepper40	Unkn	O_08.09.21	31.07	31.07	0.000	5.031E+02	2.702	5.03E+02	0.00E+00
G07	FAM	Pepper40	Unkn	O_08.09.21	31.13	31.13	0.000	4.823E+02	2.683	4.82E+02	0.00E+00
G08	FAM	Pepper10	Unkn	AC_08.05.21	32.23	32.23	0.000	2.257E+02	2.354	2.26E+02	0.00E+00
G09	FAM	Pepper10	Unkn	AC_08.05.21	32.11	32.11	0.000	2.449E+02	2.389	2.45E+02	0.00E+00
G10	FAM	Pepper10	Unkn	AC_08.05.21	32.24	32.24	0.000	2.247E+02	2.352	2.25E+02	0.00E+00
G11	FAM	Pepper40	Unkn	AC_08.05.21	34.81	34.81	0.000	3.810E+01	1.581	3.81E+01	0.00E+00
G12	FAM	Pepper40	Unkn	AC_08.05.21	34.75	34.75	0.000	3.959E+01	1.598	3.96E+01	0.00E+00
H01	FAM	Pepper	Unkn	H_08.05.21	25.33	25.33	0.000	2.620E+04	4.418	2.62E+04	0.00E+00
H02	FAM	Pepper	Unkn	H_08.05.21	25.22	25.22	0.000	2.827E+04	4.451	2.83E+04	0.00E+00
H03	FAM	Pepper10	Unkn	H_08.05.21	28.25	28.25	0.000	3.503E+03	3.544	3.50E+03	0.00E+00
H04	FAM	Pepper10	Unkn	H_08.05.21	28.24	28.24	0.000	3.540E+03	3.549	3.54E+03	0.00E+00
H05	FAM	Pepper10	Unkn	H_08.05.21	28.33	28.33	0.000	3.315E+03	3.521	3.32E+03	0.00E+00
H06	FAM	Pepper40	Unkn	H_08.05.21	30.73	30.73	0.000	6.329E+02	2.801	6.33E+02	0.00E+00
H07	FAM	Pepper40	Unkn	H_08.05.21	30.69	30.69	0.000	6.511E+02	2.814	6.51E+02	0.00E+00
H08	FAM	Pepper10	Unkn	AC_08.06.21	29.16	29.16	0.000	1.870E+03	3.272	1.87E+03	0.00E+00
H09	FAM	Pepper10	Unkn	AC_08.06.21	29.25	29.25	0.000	1.761E+03	3.246	1.76E+03	0.00E+00
H10	FAM	Pepper10	Unkn	AC_08.06.21	29.20	29.20	0.000	1.826E+03	3.262	1.83E+03	0.00E+00
H11	FAM	Pepper40	Unkn	AC_08.06.21	31.47	31.47	0.000	3.805E+02	2.580	3.80E+02	0.00E+00
H12	FAM	Pepper40	Unkn	AC_08.06.21	31.60	31.60	0.000	3.482E+02	2.542	3.48E+02	0.00E+00

Bar Chart

Normalized expression analysis is not possible, either because no target is assigned as a reference or the selected target(s) is not a

Target Names

Name	Full Name	Reference	Auto Efficiency	Efficiency
Pepper	Pepper	False	Yes	99.2%
Pepper10	Pepper10	False	Yes	99.2%
Pepper40	Pepper40	False	Yes	99.2%

Sample Names

Name	Full Name	Control
AC_08.05.21	AC_08.05.21	No
AC_08.06.21	AC_08.06.21	No
BMI_08.09.21	BMI_08.09.21	No
H_08.05.21	H_08.05.21	No
H_08.07.21	H_08.07.21	No
H_08.08.21	H_08.08.21	No
H_D_08.06.21	H_D_08.06.21	No
H_D_08.08.21	H_D_08.08.21	No
MH_08.09.21	MH_08.09.21	No
O_08.09.21	O_08.09.21	No

Gene Expression - Bar Chart Data

Target	Sample	Control	Expression	Expression SEM	Corrected Expression SEM	Mean Cq	Cq SEM	P-Value
Pepper	AC_08.05.21		N/A	N/A	N/A	27.85	0.04906	N/A
Pepper	AC_08.06.21		N/A	N/A	N/A	27.81	0.88389	N/A
Pepper	BMI_08.09.21		N/A	N/A	N/A	25.50	0.00010	N/A
Pepper	H_08.05.21		N/A	N/A	N/A	25.28	0.05534	N/A
Pepper	H_08.07.21		N/A	N/A	N/A	24.78	0.02499	N/A
Pepper	H_08.08.21		N/A	N/A	N/A	25.95	0.04944	N/A
Pepper	H_D_08.06.21		N/A	N/A	N/A	27.68	0.05545	N/A
Pepper	H_D_08.08.21		N/A	N/A	N/A	26.01	0.06735	N/A
Pepper	MH_08.09.21		N/A	N/A	N/A	27.05	0.06768	N/A
Pepper	O_08.09.21		N/A	N/A	N/A	25.53	0.04935	N/A
Pepper10	AC_08.05.21		N/A	N/A	N/A	31.56	0.22367	N/A
Pepper10	AC_08.06.21		N/A	N/A	N/A	29.20	0.02534	N/A
Pepper10	BMI_08.09.21		N/A	N/A	N/A	28.48	0.05230	N/A
Pepper10	H_08.05.21		N/A	N/A	N/A	28.27	0.02946	N/A
Pepper10	H_08.07.21		N/A	N/A	N/A	27.85	0.08563	N/A
Pepper10	H_08.08.21		N/A	N/A	N/A	27.91	0.06949	N/A
Pepper10	H_D_08.06.21		N/A	N/A	N/A	27.88	0.01178	N/A
Pepper10	H_D_08.08.21		N/A	N/A	N/A	28.30	0.06408	N/A
Pepper10	MH_08.09.21		N/A	N/A	N/A	30.29	0.03974	N/A
Pepper10	O_08.09.21		N/A	N/A	N/A	28.43	0.03330	N/A
Pepper40	AC_08.05.21		N/A	N/A	N/A	34.02	0.44069	N/A
Pepper40	AC_08.06.21		N/A	N/A	N/A	31.54	0.06420	N/A
Pepper40	BMI_08.09.21		N/A	N/A	N/A	31.03	0.03024	N/A
Pepper40	H_08.05.21		N/A	N/A	N/A	30.71	0.02063	N/A
Pepper40	H_08.07.21		N/A	N/A	N/A	30.32	0.03269	N/A
Pepper40	H_08.08.21		N/A	N/A	N/A	N/A	N/A	N/A
Pepper40	H_D_08.06.21		N/A	N/A	N/A	30.00	0.00511	N/A
Pepper40	H_D_08.08.21		N/A	N/A	N/A	30.70	0.05745	N/A
Pepper40	MH_08.09.21		N/A	N/A	N/A	32.58	0.01956	N/A
Pepper40	O_08.09.21		N/A	N/A	N/A	31.10	0.03060	N/A

QC Parameters

Data

Description	Value	Use	Results	Exclude Wells	All excluded wells
Negative control with a Cq less than	38	True		False	
NTC with a Cq less than	38	True		False	
NRT with a Cq less than	38	True		False	
Positive control with a Cq greater than	30	True		False	

Data

Description	Value	Use	Results	Exclude Wells	All excluded wells
Unknown without a Cq	N/A	True	FAM:B9, B10.	False	
Standard without a Cq	N/A	True		False	
Efficiency greater than	110.0	True			
Efficiency less than	90.0	True			
Std Curve R^2 less than	0.980	True			
Replicate group Cq Std Dev greater than	0.20	True		False	